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| 1. AGENCY USE ONLY (Leave Blank) | 2. REPORT DATE 9/1/00 | 3. REPORT TYPE AND DATES COVERED Final, 7/1/97-9/30/99 | |
| 4. TITLE AND SUBTITLE Flexible Software Composition CHAIMS | | 5. FUNDING NUMBERS F49620-97-1-0344 | |
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| 7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Office of Sponsored Research Stanford University Stanford, Ca 94305 | | 8. PERFORMING ORGANIZATION REPORT NUMBER | |
| 9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES) AFOSR/NM 110 Duncan Ave, Room B115 Bolling AFB DC 20332 | | 10. SPONSORING / MONITORING AGENCY REPORT NUMBER | |
| 11. SUPPLEMENTARY NOTES | | | |
| 12a. DISTRIBUTION / AVAILABILITY STATEMENT Approval for public release; distribution unlimited | | 12b. DISTRIBUTION CODE | |
| 13. ABSTRACT (Maximum 200 words) The CHAIMS effort is developing and refining a very high level programming language for software module composition. In the last two years, that language has been codified and is known as CLAM, the Composition Language for Autonomous Megamodules. The language is currently supported by the CPAM (CHAIMS Protocols for Autonomous Megamodules) runtime system. CPAM is the interface between the compiled megaprogram (client) and the megamodules (servers). | | | |
| 14. SUBJECT TERMS Software Composition, Megaprogramming | | 15. NUMBER OF PAGES 2 | |
| | | 16. PRICE CODE | |
| 17. SECURITY CLASSIFICATION OF REPORT Unclassified | 18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified | 19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified | 20. LIMITATION OF ABSTRACT UL |

NSN 754C-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-1
298-102

The CHAIMS effort is developing and refining a very high level programming language for software module composition. In the last two years, that language has been codified and is known as CLAM, the Composition Language for Autonomous Megamodules. The language is currently supported by the CPAM (CHAIMS Protocols for Autonomous Megamodules) runtime system. CPAM is the interface between the compiled megaprogram (client) and the megamodules (servers).

The CHAIMS compiler generates a variety of invocation sequences for current and developing standards for software interoperation, with a focus on multi-computer, distributed operation. The language includes the ability to set up module interfaces prior to executions, request performance estimates from modules prior to their invocation, schedule modules in parallel, monitor execution of invoked modules, interrupt inadequately performing modules, and provide data and meta-information to customer interface modules.

CHAIMS supports a paradigm shift that is already occurring: a move from coding as the focus of programming to a focus on composition. This shift is occurring invisibly to many enterprises, since there is no clear boundary in moving from subroutine usage to remote service invocation. There are hence few other tools and inadequate education to deal with this change.

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